

## \* CLAIMS:

1. A method of interpolating a missing color value of a pixel, said pixel forming part of an array of pixels generated by an image sensor having a color filter array, said array of pixels comprising a first and a second group of pixels, wherein the first group of pixels represents parts of an image optically filtered with a filter having a first color (G), and  
5 wherein the second group of pixels represents parts of the image optically filtered with one or more filters having one or more second colors (R, B), each pixel of the second group having a vertical and a horizontal neighboring pixel of the first group, said method comprising:

providing individual first color informations of all neighboring vertical and horizontal pixels,

10 selecting a pixel of the second group and providing second color information about the one or more second colors at the position of the selected pixel, and

interpolating the missing color value at the position of the selected pixel using the individual first color informations and the second color information, said interpolating step comprising the step of calculating a median value of the individual first color  
15 informations and the second color information.

2. A method according to claim 1, wherein said interpolating step comprises:

determining whether the selected pixel forms part of an edge in the image and whether said edge has an angle to a vertical line being substantially different from 90

20 degrees, said vertical line being defined by the neighboring vertical pixels to the selected pixel, and

in case the edge has an angle to the vertical line being different from 90 degrees:

determining a horizontal average value of the horizontal neighboring pixels,

determining a vertical average value of the vertically neighboring pixel,

25 calculating a median value using the determined horizontal average value, the determined vertical average value and the second color information at the position of the selected pixel, and

in case the edge has an angle to the vertical line substantially equal to 90 degrees:

calculating the median value of the individual first color informations and the second color information.

3. A method according to claim 2, where the step of determining whether the selected pixel forms part of an edge in the image and whether said edge has an angle to the vertical line substantially different from 90 degrees comprises:

a) forming a first pair of diagonal pixels by selecting a vertical and a horizontal neighboring pixel and determining the difference between the color values of these pixels,

b) forming a second pair of diagonal pixels by selecting a vertical and a

horizontal neighboring pixel and determining the difference between the color values of these pixels, and

c) determining the difference between color values of the pixels of the first and second pair of pixels.

4. A method according to claim 3, wherein each of steps a) and b) further comprises a step of determining if the determined differences are below a predefined level.

5. A method according to claim 4, wherein step c) further comprises a step of determining if the determined differences are below the predefined level.

6. A method according to claim 4 or 5, wherein the predefined level is between 5 and 7 percent of maximum color value.

7. A computer program comprising computer program code means adapted to perform the method according to claim 1 when said computer program is run on a computer.

8. A computer readable medium carrying the computer program according to claim 7.

9. A device for interpolating a missing color value of a pixel, said pixel forming part of an array of pixels generated by an image sensor having a color filter array, said array of pixels comprising a first and a second group of pixels, wherein the first group of pixels represents parts of an image optically filtered with a filter having a first color (G), and wherein the second group of pixels represents parts of the image optically filtered with one or

more filters having one or more second colors (R, B), each pixel of the second group having a vertical and a horizontal neighboring pixel of the first group, said method comprising:

means for providing individual first color informations about all neighboring vertical and horizontal pixels,

5 means for selecting a pixel of the second group and providing information about the one or more second colors at the position of the selected pixel, and

means for interpolating the missing color value at the position of the selected pixel using the individual first color informations and the second color information, said interpolating means comprising means for calculating a median value of the individual first

10 color informations and the second color information.

10. A color camera, comprising:

a sensor (S) having a color filter array; and

a device (3, 7) as claimed in claim 9.

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